

Radarange MICROWAVE OVEN

Record in space below the Model No., Manufacturing (MFG) No. and Serial No. recorded on the nameplate of your range. To locate the nameplate: **Model RO-1020:** Look behind the left side of the grill above the door. **Models RCC-1020 and RCR-1020:** Open the lower oven door and look on frame above oven door.

Model No. _____

MFG No. _____

Serial No. _____

Date Installed _____

Selling Dealer _____

Retain these numbers and your Sales Receipt for proof of purchase should warranty questions arise. Your Sales Receipt is required should warranty service be needed.

Complete the registration card, which is included with the packet that comes with the oven. This must be filled out and returned to Amana Refrigeration, Inc. Federal regulations require that all manufacturers of microwave ovens have a permanent record of the owners of each oven.

Contents

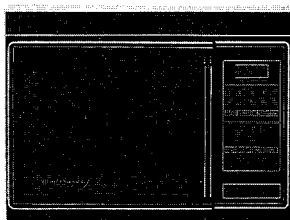
How to Use this Manual	2
Session 1 — Installation and Safety Instructions,	
Checking Oven Operation	3
Important Safety Instructions	3
Unpacking the Oven	4
Electrical Requirements	4-5
Safety Instructions	5
To Avoid Exposure to Microwave Energy	5
Setting the Clock	7
Operation of Start, Stop and Interlock Switch Systems	8
Session 2 — Quick Cooking with Full Power/Using the	
Timer	10
Cooking with Full Microwave Power	11
Changing a Time Entry	12
Using the Timer	13
Using the Timer While Cooking	13
Changing a Timer Setting	14
Session 3 — Cooking With Cookmatic® Power	
Levels and Defrosting	15
Cooking at Cookmatic Power Levels	15
Changing Cookmatic Level During Cooking	17
Defrosting	18
Session 4 — Using Automatic Temperature	
Control System	20
Special Hints for Using Temperature Probe	20
Cooking to Temperature	22
Holding at Temperature	24
Changing Programmed Temperature While Cooking	26
Using Temperature Probe Without Cooking	26
Session 5 — Programmed Cooking using 2, 3,	
or 4 Programs, Automatic Start Time,	
Instant Replay	28
Special Hint for Using Accu-Temp in a Multi-Program Sequence ..	28
Programmed Cooking	30
Changing A Cooking Program After Oven is Started	32
Automatic Start Time	32
Charts for Using Automatic Start Time	36-37
Using the Automatic Start Time Like an Alarm Clock	39
Instant Replay	39
Maintenance	42
Cleaning the Unit	42
Changing Oven Light	43
If Glass Tray Should Break	43
Before Calling for Service	44



Model R

How to Use this Manual

This manual has been written to cover the use and care of the built-in Amana Radarange Microwave Wall Oven, Model RO-1020, and the microwave oven portion of the Amana Radarange Plus (R) Microwave Cooking Centers, Models RCC-1020 and RCR-1020. Where operation of the models differ, separate instructions are provided and clearly labeled. Be sure to refer to the section that applies to the model you purchased.



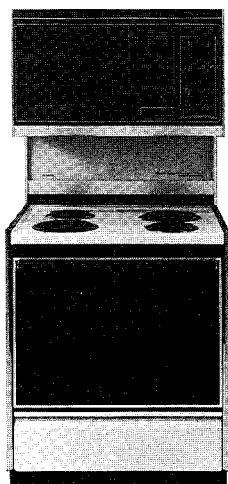
Model RO-1020

RO-1020

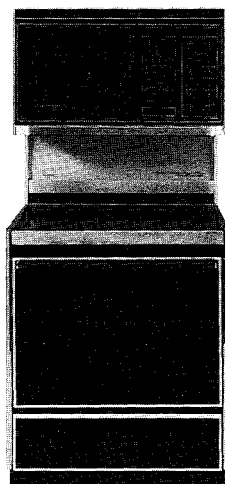
RO-1020 Amana Radarange Microwave Wall Oven. This oven offers all the features and convenience of the famous Amana Radarange Microwave Oven in an appliance designed for permanent, in-the-wall installation.

RCC-1020 and RCR-1020

RCC-1020 and RCR-1020 Amana Radarange Plus (R) Microwave Cooking Centers. These units offer a microwave oven, conventional range and cooktop cooking in a single kitchen appliance. Model RCR-1020 has a conventional coil cooktop, and Model RCC-1020 has a smooth glass-ceramic cooking surface. This manual covers only the use and care of the microwave portion of your cooking center. REFER TO THE SEPARATE MANUAL PACKED WITH THE RANGE FOR INSTRUCTIONS CONCERNING THE USE AND CARE OF THE RANGETOP, CONVENTIONAL OVEN AND OTHER FEATURES OF YOUR COOKING CENTER.



Model RCR-1020



Model RCC-1020

Installation and Safety Instructions Checking Oven Operation

IMPORTANT SAFETY INSTRUCTIONS

When using electrical appliances, basic safety precautions should be followed, including the following:

WARNING — To reduce the risk of burns, electric shock, fire, injury to persons or exposure to excessive microwave energy:

1. Read all instructions before using the appliance.
2. Read and follow the specific "PRECAUTIONS TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY" found on page 5.
3. This appliance must be grounded. Connect only to properly grounded outlet. See "GROUNDING INSTRUCTIONS" found on page 4.
4. Install or locate this appliance only in accordance with the provided installation instructions.
5. Some products such as whole eggs and sealed containers — for example, closed glass jars — may explode and should not be heated in this oven.
6. Use this appliance only for its intended use as described in this manual.
7. As with any appliance, close supervision is necessary when used by children.
8. Do not operate this appliance if it has a damaged cord or plug, if it is not working properly, or if it has been damaged or dropped.
9. This appliance should be serviced only by qualified service personnel. Contact nearest authorized service facility for examination, repair or adjustment.
10. Do not cover or block any openings on the appliance.
11. Do not use outdoors.
12. Do not immerse cord or plug in water.
13. Keep cord away from heated surfaces.
14. Do not let cord hang over edge of table or counter.
15. See door cleaning instructions on page 42.
16. To reduce the risk of fire in the cavity:
 - a. Do not overcook food. Carefully attend appliance if paper, plastic, or other combustible materials are placed inside the oven to facilitate cooking.
 - b. Remove wire twist-ties from paper or plastic bags before placing bag in oven.
 - c. If materials inside the oven should ignite, keep oven door closed, turn oven off, and disconnect the power cord, or shut off power at the fuse or circuit breaker panel.

SAVE THESE INSTRUCTIONS

UNPACKING THE OVEN

Inspect the oven for any damage such as damaged gasketing around the door, dents or holes in the screen of the door or dents inside the oven cavity.

Any dents or breakage should be reported to your Amana Dealer immediately. Your Amana Dealer will tell you if the unit will operate correctly.

After removing packing material and literature from around the glass oven tray, place tray in oven so the word "FRONT" is readable. Do not operate oven without glass tray in place.

Electrical Requirement Model RO-1020 Built-in Oven

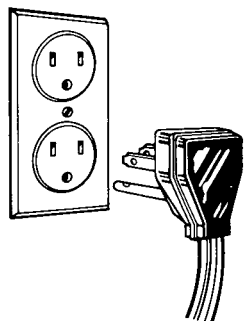
GROUNDING INSTRUCTIONS

This appliance must be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. This appliance is equipped with a cord having a grounding wire with a grounding plug. The plug must be plugged into an outlet that is properly installed and grounded. Do not use a two-prong adaptor.

WARNING — Improper use of the grounding plug can result in a risk of electric shock.

Consult a qualified electrician or serviceman if the grounding instructions are not completely understood, or if doubt exists as to whether the appliance is properly grounded.

If it is necessary to use an extension cord, use only a 3-wire extension cord that has a 3-blade grounding plug, and a 3-slot receptacle that will accept the plug on the appliance. The extension cord must be rated at a minimum of 15 amps, 120 volts, and should be no more than six feet in length. This oven should be plugged into a separate 120 volt, 15 amp, 60 hertz circuit. When a microwave oven is on a circuit with other appliances, cooking times can be increased and fuses can be blown.



INSURE PROPER GROUND
EXISTS BEFORE USING.

Models RCR-1020 and RCC-1020 Cooking Centers

GROUNDING INSTRUCTIONS

This appliance must be connected to a grounded, metallic, permanent wiring system, or an equipment grounding conductor should be run with the circuit conductors and connected to the equipment grounding terminal or lead on the appliance. It is the personal responsibility and obligation of the customer to contact a qualified electrician/installer and have the unit connected to a properly grounded circuit in accordance with the National Electric Code.

Safety Instructions


Read and follow these Rules for Safe Operation

The Amana Radarange Oven is designed to be **safe** and **reliable**. As with all appliances, there are certain rules to follow. Make sure everyone who cooks is familiar with this product's operation and with these precautions.

1. PRECAUTIONS TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY

- (a) Do not attempt to operate this oven with the door open since open-door operation can result in harmful exposure to microwave energy. It is important not to defeat or tamper with the safety interlocks.
- (b) Do not place any object between the oven front face and the door or allow soil or cleaner residue to accumulate on sealing surfaces.
- (c) Do not operate the oven if it is damaged. It is particularly important that the oven door close properly and that there is no damage to the: (a) Door (bent), (b) hinges and latches (broken or loosened), (c) door seals and sealing surfaces.
- (d) The oven should not be adjusted or repaired by anyone except properly qualified service personnel.

2. Precautions

- (a) **Always press the**  **pad twice before programming the oven.**
- (b) **WARNING:** Liquids must be briskly stirred or poured (to mix in air) before being heated in a microwave oven. If air is not mixed into a liquid, the liquid can erupt in the oven or after removal from the oven.



- (c) **Eggs** must not be cooked or reheated in the shell, or with an unbroken yolk. To do so may result in a pressure built-up and eruption. Pierce the yolk with a fork or knife before cooking.
Do not reheat previously cooked eggs in the microwave oven unless finely chopped or scrambled.
- (d) **Home canning** must not be done in a microwave oven. Home canning is generally done with metal lids. Since metal lids reflect microwaves, you cannot be assured that the food product will be heated uniformly to 212°F or above, and there is a probability of deterioration of the food product. USDA extension specialists do not recommend home canning in microwave ovens.
- (e) **Deep fat frying** must not be done in any microwave oven. The fat could overheat and be hazardous to handle.
- (f) **WARNING: Do not heat sealed containers in any microwave oven. Containers with restricted openings** such as syrup bottles must not be used for cooking. Food or liquid could expand quickly and cause the container to break.
- (g) **Regular cooking thermometers** must not be used in a microwave oven. Most cooking thermometers contain mercury and may cause "arcing", malfunction, and/or damage to the oven.
- (h) **Plastic bags (and other air-tight containers)** must always be pierced or opened before heating in a microwave oven. This is needed to allow steam to escape during cooking.
- (i) **Metal or ceramic accessories** which have a special design to absorb microwave energy to provide heat ("active" accessories such as browning skillets) may be used with caution. Be sure to test any such device before use and to read carefully and follow manufacturer's instructions provided with the accessory. Any questions concerning these accessory products should be referred to the accessory manufacturer. Amana Refrigeration, Inc., does not endorse any brand of accessory. Remember that all microwave accessories are not "top quality"; some may **not** be suitable for microwave cooking. Caution must be used when purchasing microwave accessories.
- (j) **Newspapers** must never be used in a microwave oven since they may ignite.
- (k) **Paper towels** which contain nylon or other synthetic fibers woven through them must not be used because the heated synthetics could melt and cause the paper to ignite.

Checking Oven Operation

A. Set the optional entry tone.

Your oven is designed to give you the option of a "beep" signal whenever a pad is pressed. This signal lets you know the control panel has "read" and accepted your entry.

To program the optional entry tone:

1. **Connect oven power supply (breaker or fuse).** Dash lines will appear in the readout display.
2. **Press**  . The oven should "beep" when  is pressed and whenever the oven is programmed.
3. To cancel the optional entry tone, **disconnect, then reconnect power supply.** The oven will not beep when you press the pads.

If you do not wish to use the entry tone:

1. **Connect oven power supply.** Dash lines will appear in the readout display. The oven will not beep when you press the pads.

B. To deactivate the end-of-cycle signal.

This oven also has an optional signal which sounds to indicate when cooking time has elapsed, or when the food has reached a set temperature. This signal is automatically set when you connect the oven power supply. If you

wish to deactivate the signal, press  before you set the clock

(while the dash lines are displayed).







Note: Throughout this manual, you will note references to a tone that signals the end of a cooking or timing operation. If you have deactivated the end-of-cycle signal, disregard these references.

C. Oven light.

The oven light will come on when the door is opened. It will also come on when the oven is operating.







D. Set the Clock.

To set the time of day:

1. Press  twice.
2. **Enter the time of day by pressing the numbers in sequence.** For example, if it is 10:35 (a.m. or p.m.), press the number pads in sequence beginning with the , then the , followed by the  and ending with the .
3. Press  twice. The clock is now set.

If power to the oven is interrupted (for example, if the power supply is disconnected, or if there is a power failure), dashes will appear in the display. To reset the clock, complete Steps "1", "2" and "3" above. If you wish to use the optional entry tone or deactivate the end-of-cycle signal, follow the steps on pages 5 and 6 before setting the clock.

Summary — To Set The Clock

- 1) Press  twice.
- 2) Press numbers in sequence; for 10:35, press:
   
- 3) Press  twice.

D. Check operation of the interlock switch systems.

The **START** and **STOP** pads turn the oven on and off. Microwave energy is generated only when the door is closed, cooking time or temperature has been set, and the **START** pad has been pressed. In addition, the oven has interlock switches to assure no microwave energy is generated when the door is open.

To check or remove food from the oven before the cooking time has elapsed, you may either press the **STOP** pad or simply open the oven door to turn the oven off. Before the oven door opens, hidden interlock switches sense the motion of the door handle and automatically turn the oven off.

Here is how you may check the operation of **START** and **STOP** and interlock switches:

1. Put a glass of water in the Radarange Oven and close the oven door.
2. Locate these pads on the Radarange Oven:

START

STOP

3. Press **CHANGE CANCEL** twice.

4. Press **5**, then **0**.

5. Press **START**. The oven should now be operating.

The oven light should come on.

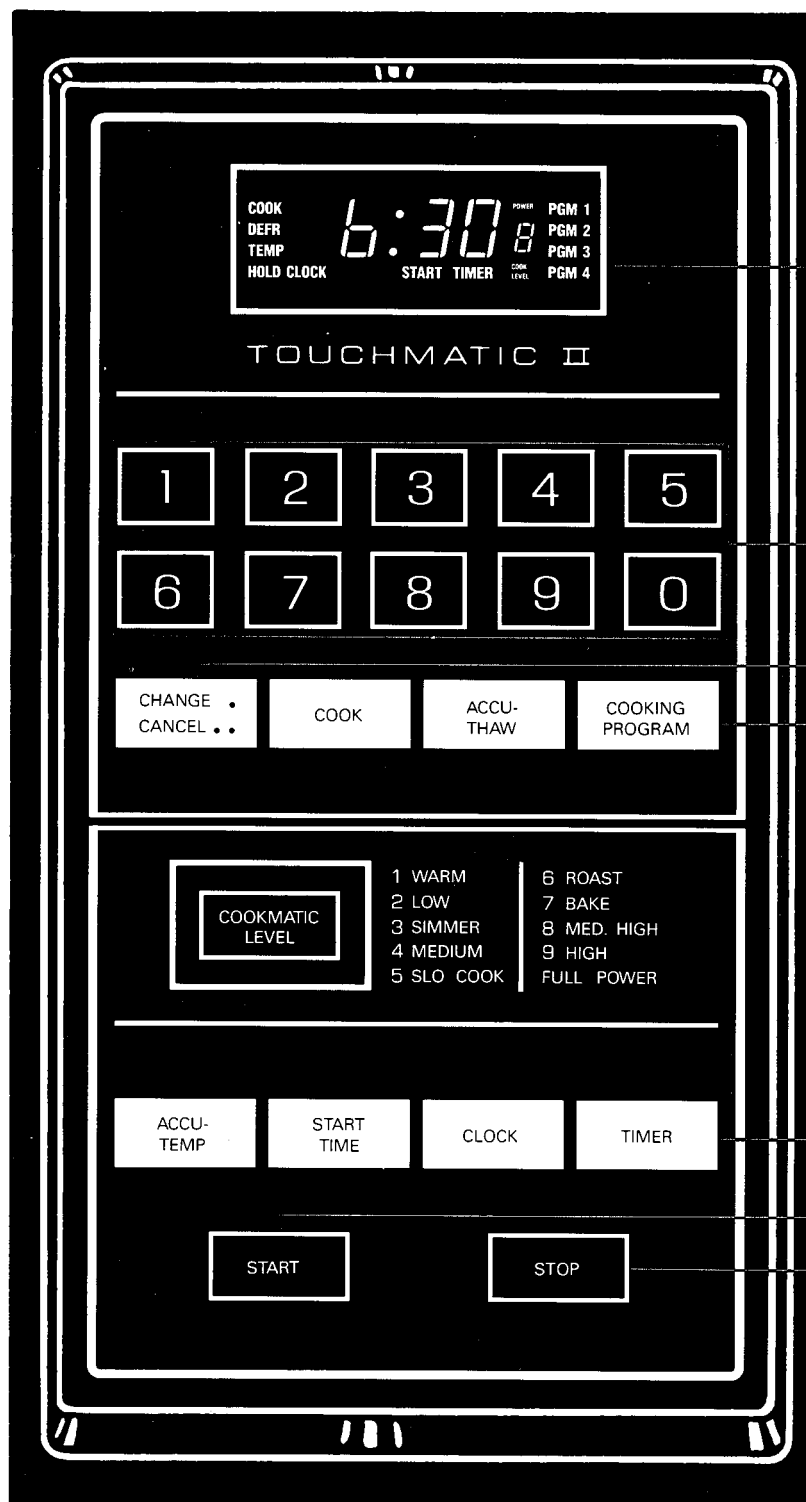
6. Press **STOP**. The oven should shut off immediately. The sound of the motor should cease. The light should go out.

7. Open the door. The light should come on when the door is opened.

8. Press **CHANGE CANCEL** twice.

If under any of the preceding conditions the oven does not operate as stated, do not use it. Call your Amana dealer or authorized servicer.

Session 2⁹



Quick Cooking With Full Microwave Power/ Using the Timer

The control panel on your Radarange Microwave Oven looks like the picture at left.

READOUT DISPLAY — Normally shows time of day.

- When cooking with time, it shows remaining cooking time.
- When cooking to temperature, it shows set temperature and actual temperature.
- When using timer, shows time remaining.

NUMBERS — Used to program everything into the control. They're arranged in a convenient, easy-to-use order.

CHANGE/CANCEL — Used to change the instructions given to the control. To change only a time entry, press this pad once. To cancel everything you've programmed, press it **twice**.

COOKING PROGRAM —

- Press after **0** to return readout display to what's happening right now.
- It is also used to program 2, 3, or 4 cooking programs (as you'll learn in Session #5).

TIMER — Pad is pressed when you want to use the timer. The timer can even be used when the microwave oven is cooking something else.

START PAD — Pressed to start cooking operation. You must program cooking time or temperature before pressing **START** pad.

STOP PAD — Pressed anytime you want to stop cooking.

At some time while you're learning to use your Radarange Oven you may make a programming mistake. If you do make a mistake, or are confused about what you've done—it's easy to get back on the right track.

—If the oven isn't operating yet—Press **CHANGE/CANCEL** **twice**.

This will cancel all the instructions you've given the oven and you can start again.

—If the oven is operating—Press **0** then **COOKING PROGRAM**.

Pressing these pads tells the control you want to know what's happening inside the oven **right now**. If the oven appears to be doing

something other than what you intended, press **STOP**, then



press **CHANGE/CANCEL** **twice**.

This will erase everything you've set the oven to do and you can start again.

TRY IT! Cooking with Full Microwave Power

Cooking with Full Power is the fastest and easiest way to cook in a microwave oven. When at Full Power your Radarange Oven will provide approximately 700 watts* of cooking power. It's **very** fast!


A. **Put a cup or glass of water in the Radarange Oven.** This is to absorb the microwaves as you experiment with the controls. When there is no food, water or other "load" to absorb the microwave energy, it could damage parts of the microwave oven.

B. Press the  pad twice. Always press the  pad twice

before programming the control. This will cancel any "leftover" instructions from previous cooking or which might have been accidentally programmed.

C. To heat the water 50 seconds with full microwave power,

1. Press  then .




2. Press . The readout will display 50 in the window.

This signifies 50 seconds.

- "PGM 1" appears in the display. The oven automatically cooks in Program 1 before advancing to a second program which you may have instructed it to do. In Session #5 you'll learn to use the other programs.
- Also notice the word "COOK" is displayed. This tells you what the microwave oven is programmed to do—COOK.
- The word "POWER" is displayed whenever the magnetron tube is producing microwave energy.
- When the 50 seconds cooking time is finished, an audible signal will be heard and the oven will turn off.

D. To heat the water for 1 minute 30 seconds:

1. Press .

2. Press , then , then . The readout will display 130, signifying 1 minute 30 seconds.

3. Press .

4. **Watch the readout "count down".** Notice that the readout following 100 is 59. Remember—the last digits of the readout mean seconds; the previous digits means minutes. Since there are 60 seconds in a minute, the number that follows 100 (1 minute, 0 seconds) is 59, which stands for 59 seconds.

*Per 1-liter test.

5. As the readout is "counting down", press **STOP** .
Notice that when you stop the oven in the middle of what you're doing, either by pressing **STOP** or by opening the door, the instructions are automatically "locked" in place.
6. Press **START** again. The oven automatically starts cooking from where you interrupted it.
7. If you don't want to continue to cook, you can press **STOP** , then press **CHANGE* CANCEL**** twice to return to time of day.

Summary — To Cook With Full Power

1. Press **CHANGE* CANCEL**** twice.
2. Press cooking time (to cook 6 minutes 10 seconds—press **6** **1** **0**).
3. Press **START** .

TRY IT! Changing a Time Entry

Occasionally you may make a mistake when entering a cooking time in the control. If you do, the entry can easily be changed.

Suppose you want to cook with full microwave power for 30 seconds but accidentally program it for 50 seconds.

A. Put a cup or glass of cool water in the Radarange Oven.

B. Press **CHANGE* CANCEL**** twice.

C. Press **5** , then **0** .

D. To change the entry—

1. Press **CHANGE* CANCEL**** once.

2. To enter the correct cooking time, press **3** , then **0** .

E. Press **START** .





Summary — To Change a Time Entry

1. Press **CHANGE* CANCEL**** once.
2. Reprogram correct entry.





TRY IT! Using the Timer

You may often want to use the control like a regular timer (for timing mixing, steeping, or even phone calls!)

To time 30 seconds:

- A. Press  twice.
- B. Press the , then the .
- C. Press the  pad. Note: You **don't** press the Start pad. The Start pad is used **only** when you want to cook in the microwave oven. Notice the word "TIMER" is displayed, indicating the timer is in use.
- D. When the 30 seconds are up, a signal will sound.








Summary — To Use Timer

1. Press  twice.
2. Press time desired (to time 45 seconds press  ).
3. Press .

TRY IT! Using Timer While Cooking

Sometimes you may want to use the timer while you're already cooking something in the Radarange Oven. You can! For example, while baking a cake in the Radarange Oven you can time mixing of ingredients for a cake topping or glaze.

To try this feature, assume you want to time 30 seconds while cooking for one minute.

- A. **Place a glass of water in the Radarange Oven.** (Remember the rule from Session #1—if you're reheating a liquid, be sure to pour or stir it first to mix in air.)
- B. Press  twice.
- C. Press , then , then  again.
- D. Press . The readout will "count down" from 1 minute as the water is heated. Notice the word "COOK" is displayed, indicating the oven is programmed to cook.
- E. Press , then .

F. Press **TIMER** pad. The readout will now “countdown” from 30 to 1. A signal will sound when the 30 seconds are up.

Notice that the word “TIMER” is displayed, indicating the oven is programmed to time.

G. You may want to check the cooking time remaining before the timer has expired. If you do want to switch the readout back to the

count down of cooking time, just press **0**, then

COOKING PROGRAM. The word “COOK” is also displayed, indicating the oven is also programmed to cook.

The readout will then count down remaining cooking time, and the audible signal will sound twice—once when the timer expires and once when the cooking time is completed.

H. After the timer sounds, the display will then count down the remaining cooking time.

Summary — To Use Timer While Cooking

1. Press time desired (to time 20 seconds press **2** **0**).
2. Press **TIMER**.
3. To return readout to ongoing cooking function before timer expires, press **0** then **COOKING PROGRAM**. To read time remaining on timer, press **TIMER**.

TRY IT! Changing a Timer Setting

The timer on your Amana Radarange Oven can be changed—even while the oven is operating. For example, suppose you set the control to time 60 seconds, started it, then decided you only want to time 10 seconds.

- A. Press **6** **0** then **TIMER**. Notice the timer immediately starts timing the 60 seconds and starts “counting down”.
- B. Press **1** **0** then **TIMER**. Notice the timer immediately quits timing the 60 seconds and starts “counting down” from 10 seconds.

Summary — To Change Timer Setting

1. Press new time desired (to time 20 seconds press **2** **0**).
2. Press **TIMER**.

Cooking With Cookmatic® Power Levels/ Defrosting

In this session you'll learn to cook with lower microwave power levels. You'll also learn how to use the defrost cycle. Locate these controls on your Radarange Oven:

COOK

COOK PAD — Used whenever the Radarange Oven is programmed to cook a specific length of time **except** when cooking with Full Power (as you learned in Session #2).

**ACCU-
THAW**

ACCU-THAW PAD — Used whenever the defrost cycle is desired.

**COOKMATIC
LEVEL**


COOKMATIC LEVEL PAD — Used to change the cooking power level.

TRY IT! Cooking at Cookmatic Power Levels









Many foods cook very well at full microwave power (as you learned in Session #2). However, just as some foods cook better conventionally at lower rather than higher oven temperatures, some foods cook better at lower rather than higher microwave power levels. Your Amana Radarange Microwave Oven has ten power levels to choose from. Each power level is particularly well suited for cooking different types of foods.

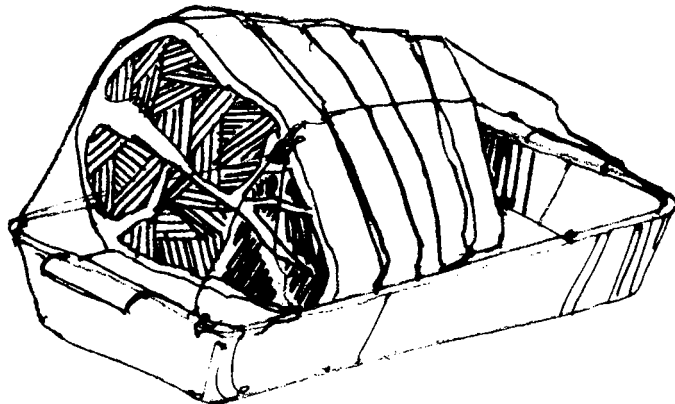
Each recipe in your Amana cookbook specifies the Cookmatic power level to be used for cooking. For example, hot chocolate is heated at Cookmatic Level 8 for one minute 45 seconds. To heat a cup of hot chocolate:

- A. **Place a cup of chocolate milk (or a cup of cold water) in the Radarange Oven.**
- B. Press **CHANGE*
CANCEL**** pad twice.
- C. Press **1 4 5**.
- D. Press **COOK**. Note: This step is different than cooking at Full Power, as you did in Session #2. The **COOK** pad **must** be pressed before proceeding to the next step.
- E. Press **8**, then **COOKMATIC
LEVEL**. This tells the oven you want to use #8 Cookmatic Level, which is 80% of full power.
- F. Press **START**. The oven will now heat the hot chocolate at Cookmatic Level 8.

- Notice that "COOK" is displayed, indicating the oven is programmed to cook.
- Also notice  is displayed, confirming the oven is cooking at Cookmatic Level 8.
- "PGM1" is displayed. The oven will cook in Program 1 before advancing to a second program you may have instructed it to do. In Session #5 you'll learn to use the other cooking programs.
- "POWER" is flashing on and off. "POWER" is displayed whenever the magnetron tube produces microwave energy. As you will recall from Session #2, "POWER" did not flash on and off when cooking with Full Power. To cook with Cookmatic Power Levels, the magnetron tube cycles on and off, and "POWER" flashes on and off accordingly.

Summary — To Cook With Cookmatic Power Levels

1. Press  twice.
2. Press cooking time (to cook 1 minute 45 seconds, press   ).
3. Press .
4. Press Cookmatic Level number (to cook at Level 3, press ).
5. Press .
6. Press .



TRY IT! Changing Cookmatic Level During Cooking

Sometimes you may want to switch the Cookmatic power level as you're cooking. For example, if something is cooking too quickly or appears like it might boil over, you'll want to change the Cookmatic power level to a lower setting. With your Amana Radarange Oven you can change the power level instantly, without even stopping the oven.



A. Place a cup of hot tap water in the Radarange Oven.

B. Press  **twice.**

C. Press  **, then**  **, then**  **again.** This sets the control to use three minutes.

D. Press  **.** This programs the oven to cook.

E. Press  **, then**  **.** This programs the oven to use the #9 Cookmatic Level.

F. Press  **.** Notice that "COOK" and  are displayed.

This indicates the oven is cooking at Cookmatic Level 9. The water will start to boil during the three minutes. When it does, change the power level to a lower setting as follows:

1. Press  **, then**  **.** Notice that  is displayed,

indicating the oven is cooking at Cookmatic Level 2. Watch the water—it will stop boiling but it will stay hot.

2. Press   **.** This changes the Cookmatic level to

Full Power. The water will now start to boil. Remember—when no Cookmatic power level is programmed, the control assumes you want to cook at Full Power. Therefore to change a Cookmatic level from a lower setting back to Full Power, you must set the oven for "0" Cookmatic Level.

Summary — To Change Cookmatic Level While Cooking

1. Press new Cookmatic Level number (to cook at Cookmatic Level 3 press **3**).
2. Press **COOKMATIC LEVEL**.

TRY IT! Defrosting

Your Radarange Microwave Oven is designed to allow quick defrosting of frozen foods. Most foods are defrosted using the defrost cycle. The defrost cycle pulses microwave energy on and off automatically. During the "on" periods microwave energy is produced, heating the exterior of the frozen food. During the "off" periods the heat is conducted to the interior of the food. This allows the food to be evenly defrosted, with little or no cooking of the exterior before the interior is completely thawed.

Defrosting instructions for specific types of foods are provided at the beginning of appropriate chapters of your Amana cookbook. A 10-oz. package of frozen fruit is defrosted in 3½ to 4½ minutes.

A. Unwrap and place 10 oz. frozen fruit in a 1-quart covered casserole.

If the fruit is packaged in a plastic bag, merely slit the bag to allow steam to escape. (If you do not have frozen fruit on hand, place 2 ice cubes in a cup in the Radarange Oven.)

B. Place fruit or cup of ice in Radarange Oven.

C. Press **CHANGE/CANCEL twice to erase any previous instructions.**

D. Press **3, then **3**, then **0**.** This sets the control for three minutes 30 seconds of time. (Note: Start with the shortest amount of time and increase only if needed.)

E. Press **ACCU-THAW.**

F. Press **START.** Notice "DEFR" is displayed.

This indicates the oven is programmed to defrost the fruit. The microwave power will cycle on and off automatically, as indicated by the word "POWER" flashing on and off.

G. At the end of 3½ minutes, remove the casserole from the Radarange Oven. Remove cover, and stir fruit.

H. If additional defrosting is necessary return fruit to oven, press

1 0 0, then **ACCU-THAW** press **START**.

Note: Some frozen foods defrost better on one of the lower Cookmatic power levels. If defrosting with a Cookmatic power level is recommended, follow the directions for cooking with Cookmatic

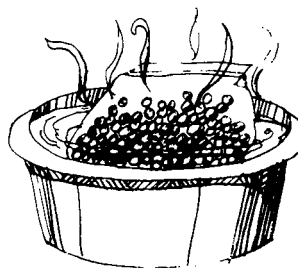
power levels (page 15). The **ACCU-THAW** pad is not used when defrosting with lower Cookmatic power levels.

Note: Many foods, especially meats, need to be completely defrosted before cooking begins. If not completely defrosted on the inside as well as the outside, cooking will be uneven. If ice crystals remain in the inside of meats when cooking starts, the meat will be done on the outside while the inside is underdone. Defrosting times and power levels suggested in your Amana cookbook have been thoroughly tested to provide optimum defrosting. Be sure to follow defrosting instructions exactly.

Summary — To Defrost [Using Defrost Cycle]

1. Press **CHANGE CANCEL** twice.
2. Press defrosting time (to defrost 8 minutes press **8 0 0**).
3. Press **ACCU-THAW**.
4. Press **START**.

In this session you've learned to cook with lower microwave power levels. Plus you've learned to use the Radarange Oven automatic defrost cycle. We suggest you practice what you've learned in Session #3 before going on to Session #4. Try any recipe in the cookbook which uses any one of the Cookmatic power levels. You will also want to try defrosting. Select any food in a defrost chart (at the beginning of appropriate chapters in your Amana cookbook) and try it!



Session 4

Using the Automatic Temperature Control System [Accu-Temp]

Your Amana Radarange Oven has an automatic temperature control system (Accu-Temp) which allows you to cook food to the precise temperature desired. You'll find this feature particularly helpful for cooking meats to the exact temperature you want. You can also use it to reheat leftovers, to warm soups and beverages and for many other cooking tasks. **The temperature probe is not intended for use as a candy thermometer.** The highest temperature sensed by the probe is 195°F, while most candies require temperatures of 230°F or higher.

Locate this control on your Radarange Oven:

ACCU-TEMP

ACCU-TEMP PAD — Used to cook food to a given temperature. It will also automatically hold food at the specified temperature for 60 minutes or until you turn the oven off.

Special Hints for Using the Temperature Probe

1. Insert probe as instructed in recipe or as shown at left.

a. Meats

— With the sensor tip in the thickest section, halfway between the center and outside edge of the meat, away from fat and bone. Be sure the probe is inserted into the largest **lean** area of the meat.

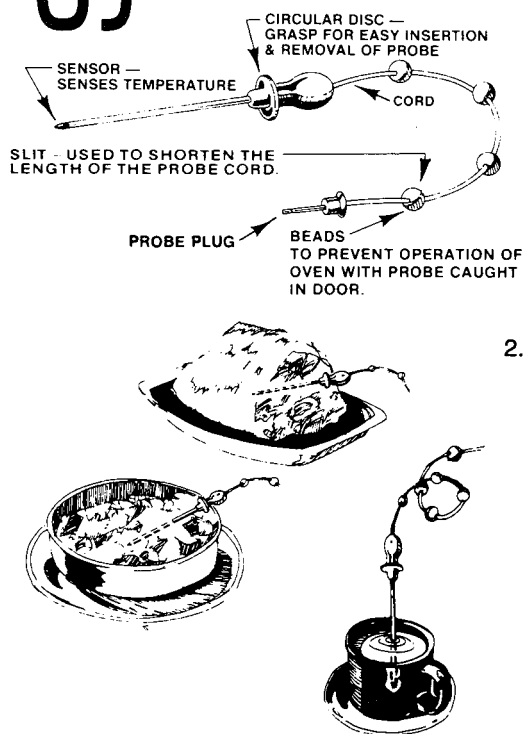
b. Casseroles, Leftovers

— With tip in center of casserole or dish, not touching bottom or sides.

c. Beverages

— With tip in center of liquid.



2. Be sure probe is **securely** inserted into food. If probe should accidentally fall out of food it will sense air temperature and the food will not cook properly. The probe could become damaged. If the probe tends to slip out of the food, loop the cord (as shown in the beverage drawing at left). The cord can be secured in the slit in the bead closest to the probe plug. Simply loop the cord, then press a section of the cord into the slit in the bead.



3. If you plan to use the temperature probe to cook frozen food—plan ahead. You **must** prepare the food to accept the temperature probe **before** it is frozen. The sensor tip of the probe can be damaged if it is forced into frozen food. To prepare the foods **before** they are frozen:
 - a. Insert a clean, rigid **plastic** drinking straw into the meat, casserole or other unfrozen food. Insert the straw in the same location in which the temperature probe will be placed. Be sure the end of the straw is in the center of the food, away from fat and bone.
 - b. Using scissors, clip the length of straw protruding from the surface of the food. Discard, or use for another piece of meat.
 - c. Wrap and freeze food as usual.

The straw will form a channel into the frozen food. When you remove the food from the freezer the probe can be inserted through the straw. The food can then be defrosted and cooked without need to return to the oven to insert the temperature probe after the food is thawed.

- d. **If you forget to insert the straw before freezing, or purchase food pre-frozen, defrost food completely before inserting temperature probe. The sensor tip of the probe can be damaged if forced into frozen food.**
- e. Complete defrosting of food is essential before the Radarange

Oven cooks using  . If the temperature probe is in contact with a frozen area (such as the center of a partially defrosted roast) the Automatic Temperature Control System may turn the oven off shortly after the oven has started cooking using .







Therefore, when using the temperature probe in a frozen food (which has been prepared with a plastic drinking straw as described) you should program your oven all at once to defrost and then cook to temperature as you will learn in Session #5.

4. If necessary, use a hot pad to remove hot temperature probe. During cooking the probe could become hot enough to burn you.
5. Wash the probe with hot, soapy water. Do not immerse the probe plug in water or wash in an automatic dishwasher. Rinse and dry probe thoroughly.
6. **Always remove the temperature probe after use.** Store the temperature probe somewhere other than inside the Radarange Oven, in a place where it won't be lost or damaged.

7. Do not attempt to force the temperature probe into solidly frozen food. The temperature sensor tip could be damaged or the probe could break.
8. Do not use the temperature probe in conjunction with foil or other metal. Arcing could result. **If a recipe suggests the use of foil, do not use the temperature probe for cooking.**
9. Do not attempt to operate the microwave oven if the temperature probe should accidentally get caught in the oven door.
10. Do not use the Automatic Temperature Control System when cooking different dishes or foods in the Radarange Oven at the same time. Because different foods cook at different rates, the results may be unsatisfactory.

TRY IT! Cooking to Temperature

Try using the automatic temperature control system to heat water to 190°F to make instant coffee.

- A. **Place cup of cold water in Radarange Oven.**
 - B. **Insert probe plug into the probe receptacle** on the right side of the microwave oven cavity.
 - C. **Place tip of probe in center of cup.**
 - D. **Close Radarange Oven door.**
 - E. Press  **twice.**
 - F. Press    for 190°F. "190" will be displayed.
- The lowest temperature which can be sensed by the temperature probe is 100°F; the highest is 195°F.
- G. Press  . This sets the control to cook to the temperature you just specified. "TEMP" is displayed if the probe has been inserted in the oven correctly.
 - H. Press  . The Radarange Oven is now cooking at

Full Power until the temperature probe senses the water has reached 190°F. When using the automatic temperature control system, no cooking time is programmed, since the oven will cook by temperature alone. Notice the word "POWER" is displayed. This indicates the Radarange Oven is cooking at Full Power. The actual temperature of the food will appear in the display.

To find the set temperature while the oven is cooking, simply

press **ACCU-TEMP**. The set temperature will appear in the display as long as the pad is pressed, then the display will return to the actual food temperature. When the programmed temperature is reached, the oven will sound a tone.

I. Press **STOP** when you hear the tone. (Don't worry if you don't

press it immediately, because the oven will shut off automatically if the set temperature is 139°F or less. If the set temperature is 140°F or higher, the oven will automatically "hold" the food for 60 minutes at the set

temperature until you press **STOP**.

Note: If Stop is pressed or the oven door is opened during the "hold" period and the oven is then restarted, the oven will hold the food at the set temperature up to 60 minutes from when the oven was restarted.

J. Press **STOP** to turn oven off. Remove probe from oven.

K. Add instant coffee to water.

Note: In this example, you cooked to temperature using Full Power. You can also cook to temperature using a lower Cookmatic power level. For example, if you were heating milk or hot chocolate, you would want to cook at Cookmatic Level 8 to 140°F. To cook at a lower Cookmatic level, complete Steps "A" through "G" on the previous page, then press the Cookmatic level number

and **COOKMATIC LEVEL** pad before pressing **START**.

Note: The Radarange Oven has an automatic "temp-probe check". Whenever the oven's control is told to cook to temperature, it automatically checks to be sure the probe plug is securely fastened in the oven receptacle and is working correctly. If the probe plug is not securely placed in the receptacle or is not working correctly, the **Error Signal** will sound a short tone and the display will show the cooking program number when you

press **ACCU-TEMP**.

So—if the Error Signal sounds when you press **ACCU-TEMP**—check the following:

- 1) Is the probe plug securely inserted into the oven receptacle? If not, reinsert the probe and reprogram instructions.
- 2) If the Error Signal still sounds when you press **ACCU-TEMP**, the probe may be broken. See page 46 for what to do when service is required.

Summary — To Cook to Temperature

1. Insert probe into food and oven receptacle.
2. Press **CHANGE*
CANCEL**** twice.
3. Press desired temperature (to cook to 140°F, press **1** **4** **0**).
4. Press **ACCU-
TEMP** .
5. If less than full microwave power is desired, press Cookmatic power level number, then press **COOKMATIC
LEVEL** .
6. Press **START** . The actual temperature of the food will be displayed.

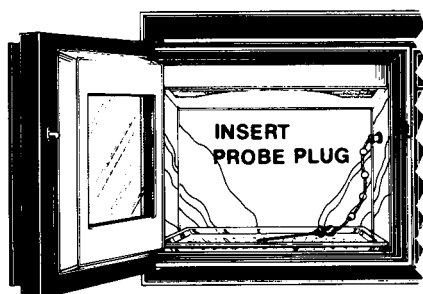
TRY IT! Holding at Temperature

The temperature-holding capability of your Amana Radarange Microwave Oven allows you to prepare the most even, tender meats ever cooked in a microwave oven. You can also maintain a precise simmer of sauces, stews, and soups for as long as you wish. And you can hold a casserole, fondue, meat or almost any other food at serving temperature for even the latest of the late-arrivals.

Note: The Temperature-Hold feature is designed to operate when the set temperature is 140°F or above. Food such as cooked meat, poultry or fish should be held at 140°F or above to prevent the growth of bacteria or the production of toxins.

To illustrate, suppose you want to hold liquid at a 140°F temperature.

- A. **Place a cup or glass of fresh cold water in the Radarange Oven.**
- B. **Insert probe into the middle of cup. Insert the probe plug into the oven receptacle.**
- C. **Close Radarange Oven door.**
- D. Press **CHANGE*
CANCEL**** twice.
- E. Press **1** **4** **0** for 140°F.
- F. Press **ACCU-
TEMP** .
- G. Press **START** . The oven will heat the water to 140°F with full microwave power. When the display shows that the temperature has reached 140°F, a tone will sound and the oven will begin "holding at temperature" automatically for up to 60 minutes, or until you turn the oven off by pressing **STOP** .



- "TEMP" and "HOLD" are displayed, indicating the oven is programmed to heat the food to the given temperature and hold it there automatically.
- "POWER" is displayed, indicating that the oven is generating microwave power.

H. Press **STOP** to turn oven off. Remove probe from oven.

I. Press **CHANGE*
CANCEL**** twice to return readout display to correct time of day.

Note: In this example, you cooked and held at temperature using full microwave power. To cook at a lower Cookmatic power level, complete Steps "A" through "F", then press the desired Cookmatic

power level number and **COOKMATIC
LEVEL** pad before pressing

START

Note: You may wish to keep track of the length of time the food temperature is held. For example, some meat recipes suggest holding temperature for a specific length of time to tenderize meat.

If you wish to time the length of temperature hold:

Complete Steps "A" through "G" above. When the tone sounds (indicating that the programmed temperature has been reached):

—Press time desired (to time 30 minutes, press

3 0 0 0).

—Press **TIMER**

—To return to readout display of actual temperature, press

0 then **COOKING
PROGRAM**. To see the amount of time remaining,

press **TIMER**

—When timer expires and the signal sounds, press **STOP**

Summary — To Hold at Temperature

1. Insert probe into food and oven receptacle.
2. Press **CHANGE*
CANCEL**** twice.
3. Press desired holding temperature (to hold at 140°F, press **1 4 0**).
4. Press **ACCU-
TEMP**.
5. If less than full microwave power is desired, press Cookmatic power level number, then press **COOKMATIC
LEVEL**.

6. Press **START** .
7. Press **STOP** to turn oven off. Remove probe from oven.
8. Press **CHANGE*
CANCEL**** twice to return readout display to correct time of day.

TRY IT! Changing Programmed Temperature While Cooking

Occasionally you may want to change the programmed temperature while you're cooking. This can be done while cooking to temperature or while holding at temperature. To try this, complete Steps "A" through "G" of "TRY IT! Holding at Temperature", page 24. To change the temperature:

- A. Press desired temperature (press **1** **5** **0** for 150°F).
- B. Press **ACCU-
TEMP** .
- C. Press **STOP** to turn the oven off.
- D. Press **CHANGE*
CANCEL**** twice to return readout display to correct time of day.

TRY IT! Using the Temperature Probe Without Cooking

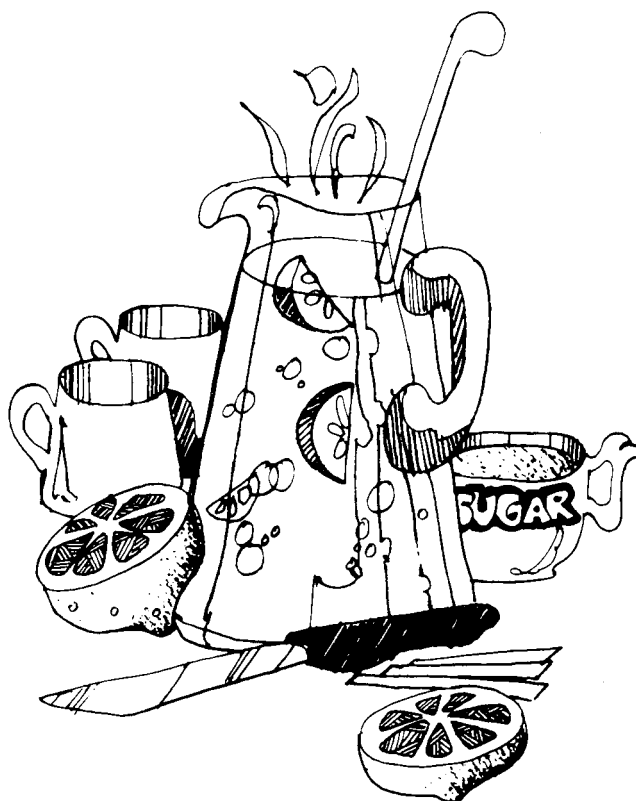
You can also use the temperature probe as a thermometer, even when the oven isn't cooking! For example, you may want to measure to see if tap water is warm enough to soften dry yeast (110°F), or if food is less than serving temperature (less than 140°F).

- A. Place a glass of hot tap water in the Radarange Oven.
- B. Insert temperature probe in the water. Insert probe plug into the oven wall receptacle.
- C. Press **CHANGE*
CANCEL**** twice.
- D. Press **ACCU-
TEMP** pad. The number which appears in the readout display signifies the actual temperature.
- E. Press **CHANGE*
CANCEL**** twice to return readout display to time of day.

Summary — To Use the Temperature Probe Without Cooking

1. Insert temperature probe tip into food; insert probe plug into oven wall receptacle.
2. Press **CHANGE***
CANCEL** twice.
3. Press **ACCU**
TEMP.
4. To return readout display to correct time of day, press **CHANGE***
CANCEL** twice.




In this session you have learned to use the automatic temperature control system both to cook to temperature and to hold food at a given temperature. We'd suggest trying each of these cooking procedures on your own before going on to Session #5. In Session #5 you'll learn to use the Cooking Programs of your Amana Radarange Microwave Oven.



Session 5

Programmed Cooking Using 2, 3 or 4 Cooking Programs/ Automatic Start Time/ Instant Replay

Your Amana Radarange Microwave Oven's control allows it to remember up to four cooking programs, making automatic multi-step cooking very convenient. You can often set the oven and forget the food until it's time to serve. As you learned the main functions of your Radarange Oven in the first four sessions of this manual, you used only one cooking program. In this session you will learn how to combine these functions, listed below, in almost any order of cooking programs:

1.  Cook by time (using any Cookmatic Level).
2.  Defrost frozen foods.
3.  Cook to temperature (using any Cookmatic Level).

Special Hints For Using the Hold Function

Most of the above functions can be combined in any order of cooking programs. However, the Accu-Temp function must be programmed with care.

Special Hint For Using Accu-Temp In A Multi-Program Sequence

If the Accu-Temp function (with automatic hold) is used in a 2, 3, or 4 program cooking sequence, Accu-Temp must occupy the last program for the automatic hold feature to work. Programming Accu-Temp at the beginning or in the middle of a sequence will cause the oven to skip holding after cooking to temperature.


When used alone or at the end of a sequence, Accu-Temp (with automatic hold) does exactly what its name says it does: after cooking to temperature, it automatically holds the food at the programmed temperature for a maximum of 60 minutes or until the oven is turned off.

The Cook and Accu-Thaw functions can occupy any position in a program sequence.

Programming is Simple!


Your Amana Radarange Oven is capable of doing some very sophisticated things. But we've made them simple for you. All you do is sequentially press the correct pads and press the Start pad!

For a general overview on how to set your Radarange Oven for programmed cooking, study the following steps. Then practice using the example in the next section, entitled "TRY IT! Programmed Cooking."

A. Press  twice to clear the control's memory.


B. Enter the instructions for Program 1. Follow the same procedure that you learned in Session #1 through #4. Always give your oven number(s) (time or temperature) **before** you give it a function (for example,

 ,  ).


C. Press the  pad to "step" or "advance" to Program 2.

Notice "PGM1" stops flashing and "PGM2" begins flashing, thus indicating that the next instructions will be entered in Program 2.


D. Enter the instructions for Program 2. Remember, press in a number or numbers **before** you press a function. (If you are using only two

cooking programs, press  after you press in the instructions for the second program. Your oven will always begin operating in Program 1.)

E. If a third cooking program is required for your recipe, press

 to advance to Program 3. Notice that "PGM3" begins flashing.

F. Enter the instructions for Cooking Program 3. Again, tell your oven a number or numbers **before** telling it a function. (If you are using

only three cooking programs, press  after you check the programs.)

G. Press  to advance to Program 4. "PGM4" will flash.

H. Enter the instructions for Cooking Program 4. When you are ready to start cooking, press  after you check the programs (see below).

Cooking Programs are Easy to Check!

Once you've entered the instructions, it's easy to check to be sure you've made no mistakes. You should **always** check cooking programs before starting the Radarange Oven. If you don't correct a mistake, food won't be cooked properly—or it could even be ruined.

The **COOKING PROGRAM** pad is used to check programs before or during oven operation. To check the cooking program instructions before starting the oven, **press** **COOKING PROGRAM** until the time of day is displayed. **Press** **COOKING PROGRAM** again and "PGM1" will flash and the readout will display what is programmed for Program 1. **Press** **COOKING PROGRAM** again and review Program 2 instructions. Repeat for Programs 3 and 4, if used. If the oven is already operating, the procedure is the same, except the number for the program in operation will not flash.

TRY IT! Programmed Cooking

Remember, you always press the number or numbers **before** you press a word or function (for example, ACCU-THAW, COOK, ACCU-TEMP, or COOKMATIC LEVEL).

To get quick practice using the cooking programs, let's try it with a cup of water in the oven.

- A. Place a cup or glass of fresh cold water in the Radarange Oven.
- B. Insert the tip of the temperature probe in the water. Insert the probe plug securely in the oven receptacle.
- C. Close oven door.
- D. **Press** **CHANGE/ CANCEL** twice. (Remember—This is to cancel any "leftover" instructions).
- E. **Press all pads as indicated in the chart at left.**

1:00	ACCU-THAW	COOKING PROGRAM
1:30	COOK	COOKING PROGRAM
1	7	0
ACCU-TEMP	5	COOKMATIC LEVEL

Read all charts from left to right, pressing the pads illustrated. Notice that you are entering the numbers first and then the words, as in other oven operations.

(If you make a mistake—no problem! Just redo the line in which you made a mistake. Press the **correct** pads for the entire line.)

- F. Check to be sure you've programmed instructions exactly as shown in the chart. To check:
 - 1) **Press** **COOKING PROGRAM** repeatedly until "PGM1" begins flashing.
 - Notice which program indicators are on in the readout display. "PGM1", "PGM2" and "PGM3" should be displayed. This indicates you have put instructions to programs 1, 2 and 3, but none in Program 4. "PGM1" should be flashing, indicating you are now reviewing instructions in Program 1.
 - Notice the "100" in the readout display. This tells you you've instructed the control to do something for 1 minute in program 1.
 - "DEFR" is displayed, indicating the oven will be defrosting in program 1.

By looking at these lights you know the oven will be defrosting for 1 minute in program 1. Exactly what you told it to do!

2) Press


COOKING
PROGRAM

- Notice the word “PGM2” is now flashing. This tells you you’re examining instructions in program 2.
- The “130” in the readout display tells you the oven will do something for 1 minute, 30 seconds in program 2.
- The word “COOK” is displayed, telling you the oven will cook in program 2.

By looking at these lights you know the oven will be cooking for 1 minute, 30 seconds in program 2. Exactly what you told it to do!

3) Press

COOKING
PROGRAM

- The display should be as follows:
 - “PGM1” and “PGM2” will be displayed.
 - “PGM3” will be flashing.
 - “170” will be displayed.
 - “TEMP” will be displayed.
 -  will be displayed.

These lights tell you that in cooking program 3 the oven will cook to 170°F then hold the food at 170°F, using Cookmatic Level 5. Exactly what you told it to do!

If you find you’ve made a mistake in one of the cooking programs—

Enter the correct information exactly as it appears in the corresponding line of the Touchmatic chart. For example, if you’d made a mistake in program 1, advance the oven to program 1 and press these pads:

1.00

ACCU-
THAW

G. Press

START

- . The oven will now defrost for 1 minute, cook for 1 minute, 30 seconds, then heat the water to 170°F and hold it at that temperature.

H. Press

STOP

- after the water reaches 170°F.

I. Press

CHANGE
CANCEL

- twice.

Summary — To Cook With Cooking Programs

1. Press

CHANGE
CANCEL

- twice.

2. Enter instructions for Cooking Program 1 (press numbers before functions).

3. Press **COOKING PROGRAM**.
4. Enter instructions for Cooking Program 2.
5. If using a third cooking program, press **COOKING PROGRAM**.
6. Enter instructions for Cooking Program 3.
7. If using a fourth cooking program, press **COOKING PROGRAM**.
8. Enter instructions for Cooking Program 4.
9. Check to be sure you've pressed in all the programs correctly. Use the **COOKING PROGRAM** pad to advance the oven to each cooking program.
10. Press **START**.

TRY IT! Changing a Cooking Program After the Oven is Started

Sometimes you may want to change part of a cooking program after you've started the oven. For example, you may want to change the end temperature, the length of cooking time or the Cookmatic power level to be used.

- **To change a program while the oven is cooking in that program,** simply press in the correct instructions, pressing the number (or numbers) first and then pressing the function.
- **To change a program while the oven is cooking in another program,** press **STOP**. Press **COOKING PROGRAM** to advance to the program to be changed. Press new instructions for the program, pressing number (or numbers) first and then pressing the function. To return the display to the current program, press **0** **COOKING PROGRAM**.

Automatic Start Time

The automatic start time feature allows you to prepare a food and put it in the Radarange Oven up to 4 hours before you want it to start cooking. Read pages 33-35 to learn the cooking principles to follow when using Automatic Start Time. Then try a quick example on page 38 to learn how to program the oven for Automatic Start Time.

Important Rules and Hints for Automatic Start Time

Oven designs and recipe instructions have been thoroughly tested to provide excellent results with the utmost in safety. However, there are a few common-sense rules you **must** follow when using the automatic start time feature:

1. Do not hold foods longer than four (4) hours. Foods which are highly perishable (e.g. milk, eggs, fish, stuffing) should not be held for use with the automatic start time feature. The foods must be frozen. This precaution is to prevent the growth of bacteria and production of toxins.
2. Be very careful that the correct cooking sequence is programmed. If mistakenly programmed to cook at too high power for too long a time in an unattended home, there is a remote chance a fire could occur. Extreme overcooking, as in conventional cooking, can cause food to smoke or char.
3. Caution children and others in the home **not** to touch the control panel after it is programmed. If several pads are pressed there is a possibility the cooking instructions could be altered.

Before using the Automatic Start Time feature, check to be sure the

Radarange Oven clock is set correctly. Press  twice before

programming the oven.

The START TIME feature is especially recommended for frozen casseroles or main dishes and non-frozen soups or casseroles which don't contain meat, milk or eggs. Below are some general hints you should follow when using the START TIME feature with these different foods.

A. General Hints for Using the START TIME Feature with Frozen Casseroles.

1. Hints for Selecting Recipes and Foods.

Select a recipe which will work well with the automatic start time feature. Select one which is safe for holding (for example, no fish, eggs, milk or stuffing). Use only frozen foods if the food is to be held longer than one hour before cooking.

Select a food which requires little or no stirring or turning. We do not recommend using the automatic start time feature for recipes which suggest frequent stirring or turning. If you are not there to stir or turn the food when suggested, results will not be optimum.

Foods we especially recommend include:

- frozen casseroles
- non-frozen soups or casseroles which don't contain milk, meat, fish or eggs.

Foods we do **not** recommend include non-frozen meats and poultry, milk, stuffings and egg dishes.








2. Hints for Freezing

Freeze the main course directly in the cooking dish, or line the dish intended for reheating with freezer cellophane or paper.

Allow the paper to overlap the dish, enough to finish wrapping later. Pour in the cooked and cooled food. Cut a plastic drinking straw the depth of the food. Insert the straw slightly off-center in the middle of the food. Avoid touching the bottom of the dish. Trim the straw with scissors, so that only $\frac{1}{4}$ inch to $\frac{1}{2}$ inch of the straw extends above the surface of the food. (This process is similar to the process for freezing meats. See page 20.) Freeze. When frozen, lift out the frozen food block and finish wrapping. Label the food, and store it in the freezer. For reheating, remove the wrapping and place the frozen food in the same dish used for freezing. Insert the temperature probe in the straw. Cover the dish with a glass lid or plastic wrap. Be sure to insert the probe jack in the oven receptacle. Program the Defrost—Cook time, according to the directions on the chart.


3. Using the Charts on pages 36-37.

Example: (4 Hours Out) You might have a casserole out of the freezer at 7:00 A.M. You might be leaving the house and want defrosting and cooking to begin at 11:00 A.M. You will put the food in the Radarange Oven and program the start time. In this example, you will actually enter these START TIME instructions:

  represents eleven o'clock. You will actually press the digits     to set eleven o'clock, or 11:00. Next, you will press the START TIME pad: .

Then, program the defrosting and cooking instructions. Remember to insert the temperature probe in the straw. Be sure to insert the probe jack in the oven receptacle. Finally, you will

press .

The Radarange Oven won't begin to operate at the programmed start time if  is not pressed.

The food will stand for 4 hours before the Radarange Oven begins to operate.

Always remember to consider the total approximate amount of Radarange Oven time when setting the START TIME.

The approximate amount of Radarange Oven time for frozen main dishes and meats may be found in the charts on pages 36-37.

A good formula to remember is: serving time — approximate oven time = START TIME.

If the food requires 1 hour of total Radarange Oven time, for example, and you want to serve at 5:00 P.M., set the START TIME to 4:00. The Radarange Oven will start at 4:00 and be finished by 5:00. The Automatic Temperature Control should be used to indicate when the food reaches the desired serving temperature. Hold the food on the Cookmatic Level as indicated in the charts.

The defrost times on the "Start Time for Frozen Casseroles" charts on pages 35-36 in this manual are different from the times on the "Casserole Defrosting Chart" in your Amana cookbook. Since Automatic Start Time will require frozen meats to remain in the Radarange Oven for a period of time before the Radarange Oven begins to operate, some "natural" preliminary defrosting of the casserole will occur. Therefore, the defrosting times in the charts in this manual have been adjusted accordingly.

B. General Instructions for Using START TIME Feature for Defrosting and Cooking Frozen Casseroles

1. Prepare the food according to the general hints on pages 33-35. Place the main dish in the proper size utensil for the food. Cover with plastic wrap.
2. Before programming the defrosting and cooking times, set the START TIME in the following way: Press **CHANGE*** twice, then press the digits for the time of day you wish the oven to begin cooking. Then press **START TIME**.
3. Program the cooking and defrosting instructions, according to the programmed cooking instructions on the chart. Remember to insert the temperature probe in the straw. Be sure to insert the probe jack in the oven receptacle.
4. Finally, press **START**. The Radarange Oven won't begin to operate at the programmed start time if **START** is not pressed.

C. General Hints for Using the Start Time Feature with Non-Frozen Foods

1. Soups or casseroles which don't contain meat, milk, or eggs are good to use with the Automatic Start Time Feature. Vegetable soups or casseroles work especially well. Prepare the soup or casserole, following the recipe instructions. Then, place the food in the Radarange Oven and set the START TIME, as when setting the Start Time for frozen main dishes or meats. Program the cooking instructions. Insert the temperature probe, if the recipe requires it. If used, be sure to insert the probe jack in the oven receptacle. Finally, press **START**. The Radarange Oven won't begin to operate at the programmed start time if **START** is not pressed.
2. Avoid using non-frozen foods such as meats or dishes containing meat, milk, or eggs with the Automatic Start Time Feature.

Dist

1-qu

1 1/2-

*Reme

instruc

Reme

**Includ

You m

START TIME FOR FROZEN CASSEROLES CHART

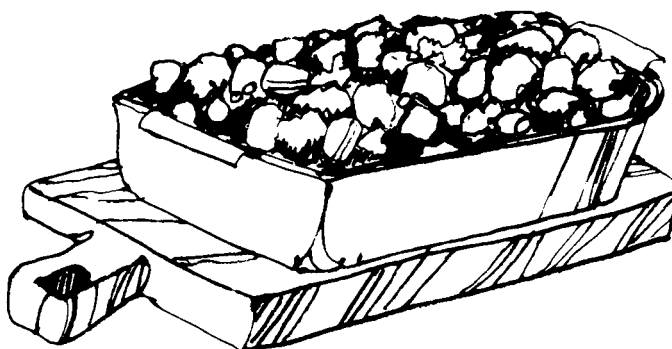
Dish Size	"Hours Out"	Programming Instructions*	Approximate Radarange Oven Time**
1-quart	4	<div>20:00</div> <div>ACCU-THAW</div> <div>COOKING PROGRAM</div> <div>4:00 to 6:00</div> <div>COOK</div> <div>COOKING PROGRAM</div>	24 to 26 min.
1½-quart	4	<div>25:00</div> <div>ACCU-THAW</div> <div>COOKING PROGRAM</div> <div>5:00 to 7:00</div> <div>COOK</div> <div>COOKING PROGRAM</div>	30 to 32 min.

*Remember to press **CHANGE/CANCEL**** twice, then set **00:00** **START TIME** before programming the defrosting and cooking instructions. See the instructions on page 34.

Remember to press **START**

**Includes both the defrosting and cooking time.

You may want to stir before serving.



START TIME FOR FROZEN CASSEROLES CHART (Continued)

Dish Size	"Hours Out"	Programming Instructions*			Approximate Radarange Oven Time**
2-quart	4	45:00	ACCU- THAW	COOKING PROGRAM	56 to 60 min.
		11:00 to 14:00	COOK	COOKING PROGRAM	
3-quart*	4	60:00	ACCU- THAW	COOKING PROGRAM	1 hr., 15 min. to 1 hr., 20 min.
		15:00 to 20:00	COOK	COOKING PROGRAM	

*Remember to press **CHANGE*
CANCEL**** twice, then set

00:00 **START
TIME**

before programming the defrosting and cooking

instructions. See the instructions on page 34.

Remember to press **START**


**Includes both the defrosting and cooking time.

You may want to stir before serving.








TRY IT! Automatic Start Time









Just to see how the automatic start time works:

- A. Place a cup or glass of cold water in the Radarange Oven. Close the door.
- B. Press  twice.
- C. Look at the readout display to check the present time of day. To start cooking two minutes from now, add two minutes to this time. (For example, if it is presently 2:30, the start time will be 2:32.)
- D. Press the pads indicating the Start Time you selected. (Remember, when the readout is functioning as a clock, the digits indicate:

Hour Minutes
  or 2:32.)

- E. Then press . This sets the control to start cooking at the start time you selected.
- F. Press   . This programs the oven to defrost for 20 seconds.
- G. Press . At the time you set for start time, the oven will turn on and cook for 20 seconds.






Summary — To Use Automatic Start Time

1. Press  twice.
2. Check to be sure the clock is at the correct time of day.
3. Enter desired start time (to start at 2:45, press    .) (Serving time—oven time = Start Time.)
4. Press .
5. Enter the entire cooking sequence desired.
6. Press .
7. If you want to check the time of day before the oven starts, press , then press  again.

TRY IT! Using the Automatic Start Time Like an Alarm Clock






The Automatic Start Time features of your Radarange Oven can even be used like an alarm clock. You can use it to remind you to take your medicine—or when it's time to leave for an appointment!

Just to see how to use the Start Time feature like an alarm clock:

- A. Press  twice.
- B. Check to be sure the clock is set to the correct time of day.
- C. Select a time (within the next 12 hours) when you'd like to be reminded to do something. Press the numbers corresponding to the time you select. (For example, if you need to take a pill at 9:00, press   ).
- D. Press .

At the time you set, the reminder signal will sound.

Summary — To Use the Start Time Like an Alarm Clock

1. Press  twice.
2. Check to be sure the clock is set correctly.
3. Press the numbers corresponding to the time you want the reminder signal to sound. (For 9:00, press   ).
4. Press .

Instant Replay

Your Amana Radarange Oven has “instant replay” features that let you ask it questions. Questions like:

What time is it? (For example, you may want to know the time while the oven is cooking.)

What's the temperature of the food? (For example, to decide if a food needs reheating or if water is “lukewarm” as called for in recipe.)

What did I tell you to do in cooking program 2? (If you forget.)

TRY IT! Instant Replay

- A. Place a cup or glass of hot water in the Radarange Oven.
- B. Insert the tip of the temperature probe in the water; insert the probe plug into the oven receptacle. Close oven door.

C. Press **CHANGE/CANCEL** twice.

1	7	0	1:00	ACCU-THAW	COOKING PROGRAM
			1:30	COOK	COOKING PROGRAM
			ACCU-TEMP	5	COOKMATIC LEVEL -

D. Enter the instructions in the chart illustrated at left.

E. To ask the oven "What's the temperature of the water?"

Press **ACCU-TEMP**. "TEMP" and the actual temperature of the water will be displayed.

Press **0** **COOKING PROGRAM**. This returns the readout display to the on-going cooking function (or time of day when the oven hasn't been started).

F. To ask the oven "What did I tell you to do in the second cooking program?", press **COOKING PROGRAM** until "PGM 2" flashes in the display. The lights which are on in the readout display tell you what the oven will be doing in the second cooking program.

Press **0** **COOKING PROGRAM** to return the display to the ongoing cooking function (or time of day if oven isn't started yet).

G. Press **START**. The oven will now start the sequence you told it to do. You could ask the oven each of the above questions while it is operating.

H. To ask the oven "What time is it?" press **CLOCK**. The readout display will now show the time of day.

Press **0** **COOKING PROGRAM** to return the readout display to the ongoing cooking functions.

I. Press **1** **0** **0** **TIMER** as if you were timing something else for a minute. Before the minute expires, press **0** **COOKING PROGRAM** to go back to the readout display of the ongoing cooking function.

Press **TIMER** to ask oven "How much time is remaining on the timer?" Press **0** **COOKING PROGRAM** to go back to the ongoing cooking function again.

To Check Present Temperature Of Food [temperature probe must be inserted]

1. Press **ACCU-TEMP**. Readout will be the actual temperature.
2. To return to display of ongoing function, press **0** **COOKING PROGRAM**.

To Check Present Time of Day [clock must be set to correct time of day]

1. Press **CLOCK**. Readout will be present time of day.
2. To return to display of ongoing function, press **0** **COOKING PROGRAM**.

To Check Time Left on Timer

1. Press **TIMER**.
2. To return to display of ongoing function, press **0** **COOKING PROGRAM**.

To Review Cooking Programs

1. Press **COOKING PROGRAM** until the desired program flashes in the display. Repeat for each program you want to review.
2. To return to display of ongoing functions press **0** **COOKING PROGRAM**.

The Error Signal

Programmed cooking is so easy with your Radarange Oven, it can even tell you when you have accidentally programmed something illogical. The Error Signal (a short tone) will sound if you program the following instructions:

- If you program a Cookmatic Level with Defrost.
- If you attempt to enter a new Start Time after the oven has begun cooking.
- If you attempt to enter a temperature lower than 100°F or higher than 195°F. The temperature probe can only sense temperature from 100° to 195°F.
- If you program the oven to cook to temperature without inserting the temperature probe plug into the oven wall receptacle.

Maintenance

Maintenance Tips/ Cleaning the Unit

To Clean The Oven and Door Interior

If the inside walls, floor, door and splatter shield at the top of the oven should become splattered, simply wipe them with a paper towel or clean with a mild detergent in warm water using a soft sponge or cloth. If desired, a cup of water can be boiled in the oven to loosen soil before cleaning. After boiling the water, allow the water vapor to settle on the oven walls to soften the soil for several minutes before you open the door.

Do not use an abrasive to clean the inside. It might damage the finish on the stainless steel. Never pour water into the bottom of the oven.

To Clean The Glass Tray, lift up the tray and remove. Wash in warm water and detergent or in a dishwasher. Replace drip tray so the word "FRONT" is readable. Do not operate the oven without tray in position.

To Clean The Splatter Shield Inside Oven

The splatter shield keeps the top of the oven and antenna from getting dirty. Normally, a damp cloth will remove any splatter from the shield.

However, if you want to clean it more thoroughly, remove the splatter shield. **Be careful not to bend the antenna when removing the splatter shield.** The shield is secured by four screws in recessed wells in the front underside of the shield and four tabs which fit into slots in the back oven wall. Remove the four screws. Then carefully lower the shield and, clearing the antenna, pull the shield forward out of the back wall slots and out of the oven.

Wash the shield in hot, soapy water. **Do not** wash in a dishwasher. **Do not** use harsh or abrasive cleaners.

When replacing, again be careful not to bend the antenna. Also be sure the splatter shield tabs fit snugly into the slots in the back of the oven before replacing the screws.


To check oven antenna operation, place a glass or cup of water in unit, close door and start the unit. A rotating shadow should be visible above the splatter shield.

To Clean The Oven Exterior

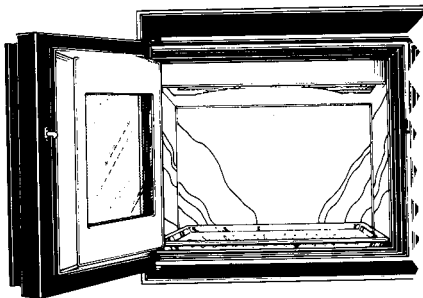
Use a soft sponge or cloth dampened with mild, sudsy water. Do not use abrasive cleaners.

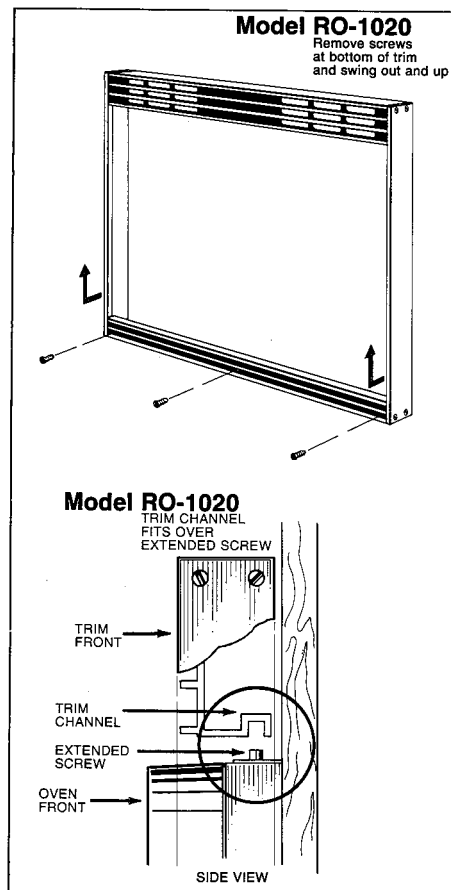
Always Keep The Control Panel Clean

To clean the Control Panel merely wipe with a **damp** soft cloth or sponge. If the time of day display is accidentally erased from the control, merely

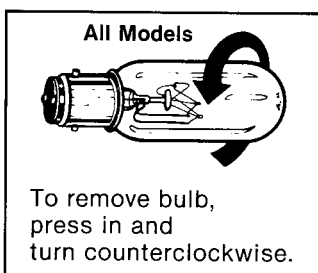
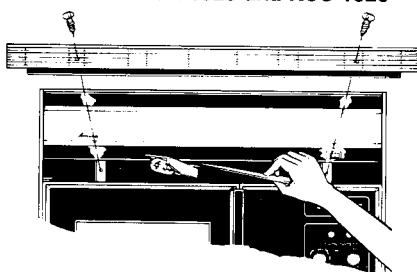
press  **twice**, then set the correct time of day. If you wish to use the optional entry tone, follow the instructions on page 6 before setting the clock.

To Clean the Temperature Probe wash the metal probe in hot soapy water. Do not immerse the probe plug or wires in water. Do not wash probe in dishwasher.





Models RCR-1020 and RCC-1020



To Clean The Discharge Air Vents

There will be a slight build-up of cooking vapors in the discharge vent located in the grill above the door. This vent should be cleaned occasionally, using a damp cloth. The grill can also be removed for thorough cleaning with a mild detergent and warm water.

How to Change the Oven Light

Always deactivate the oven supply circuit (breaker or fuse) before you change the oven light.

The Radarange Oven light is reached from the front by either removing the trim frame (Model RO-1020) or by removing the grill above the Radarange Oven door (models RCR-1020 and RCC-1020).

Model RO-1020: Remove the three screws from the bottom trim below the Radarange Oven door and control. Swing the trim outward and upward to remove the trim frame.

Models RCR-1020 and RCC-1020: Remove the screws from the front of the grill and lift off.

To remove light bulb:

- With the grill removed, you can locate a metal tab above the oven. This metal tab is the upturned end of a metal strip that runs to the rear of the oven, where it is attached to the light bulb socket.
- Lift the tab slightly upward and you will see the light bulb (and socket) as it is removed from its recess. (A slight twisting motion may be necessary.)
- Pull the tab forward until the light bulb is at the front of the oven.
- Turn the metal strip to the right so the light can be reached.
- To remove the bulb, press into socket and turn counterclockwise as pictured. Be careful not to burn fingers or break the bulb. **DO NOT PULL THE WIRES MORE THAN IS NECESSARY TO HOLD LAMP SOCKET.**

To replace light bulb:

- Replace with a 25-watt 25T8DC bayonet base bulb. To replace, press bulb into socket and turn clockwise.
- Using the tab and metal strip, guide the light back into its recess.

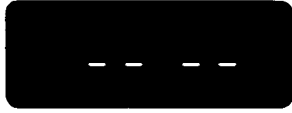
To replace trim frame:

- **Model RO-1020:** The top of the trim fits over three screws which extend from the top of the oven. Position the top of the trim over these screws, then swing the trim down and flush against the oven and cabinet. Secure the bottom of the trim with the three screws removed earlier.
- **Models RCR-1020 and RCC-1020:** Replace grill and reattach with three screws.

If the Glass Tray Should Break

The glass oven tray must be in place when operating the oven. This allows the microwaves to be reflected up into the bottom of the food that is being cooked. The tray is a special type of glass and, if it is accidentally broken, it must be replaced with the same type of glass from your Amana Dealer.

Before Calling for Service



Avoid unnecessary service calls for difficulties that are not the result of defective workmanship or materials. You will be charged for a serviceperson's travel expenses and labor, even though the product may be in warranty, if the difficulty is not caused by workmanship or materials, or if that component is considered customer replaceable.




Amana Touchmatic Radarange microwave ovens with space-age, electronic control modules offer the finest in versatility, quality and reliability. In many cases a customer call for module timer service is caused by conditions other than failure of the Touchmatic controls. That's why you should read the following before calling for service.

NOTE: A Power Interruption Signal (dash lines) will appear in the display whenever the oven is initially connected to an electrical supply circuit. The lines will also appear whenever electrical power to the oven has been interrupted and then restored. When you see these lines, simply set the clock (as described on page 7).


IF THE READOUT DISPLAY DOESN'T LIGHT UP, PLEASE CHECK:

- Is the oven plugged securely into the proper power outlet?
- Is a fuse blown or circuit breaker open?
- If the condition remains unchanged, perform the 5 steps listed in the box in this section.

IF THE READOUT APPEARS WRONG:


- Did you remember to press  twice before programming the oven?
- Have you (or someone else) pressed the pads after cooking is started?
If the readout ever appears wrong, press   to see the readout of what the oven is doing right now.
- If the condition remains unchanged, perform the 5 steps listed in the box in this section.

IF ANOTHER FEATURE DOESN'T APPEAR TO BE OPERATING CORRECTLY:


- Have you followed the use and care instructions exactly? Review them to be sure.
- Did you remember to press  twice before programming the oven? Be sure to cancel any leftover instructions before programming the oven.

- Is the oven plugged into a properly grounded and polarized outlet as described in installation instructions (pages 4 or 5, depending on your oven model)? Improper installation can result in erratic operation.
- If the condition remains unchanged, perform the 5 steps listed in the box below.

IF MICROWAVE POWER WON'T COME ON:

- Did you press ?
- Is the oven door securely closed?
- If condition remains unchanged, perform the 5 steps listed in the box below.

If condition remains unchanged, please perform the following steps:

1. Check to see if a fuse or circuit breaker is open.
2. Disconnect oven power supply (circuit breaker or fuse).
3. Reconnect oven power supply. (Dash lines should appear in the display.)
4. Press  twice. (Dash lines will disappear.)
5. Reset the clock as explained on page 7.

YOUR OVEN MUST BE ON A GROUNDED, POLARIZED CIRCUIT.

IF THE OVEN LIGHT PULSES DIMMER, THEN BRIGHTER:

- Is the line voltage to your home low or lower than usual? (The power company in your area should be able to tell you if there is low voltage to your home.)

IF ROOM LIGHTS DIM OR PULSE DIMMER, THEN BRIGHTER WHEN THE OVEN IS IN USE:

- Is the microwave oven on a separate circuit? (Review installation instructions, pages 4 or 5, depending on your oven model.)

IF THE TEMPERATURE PROBE APPEARS NOT TO FUNCTION CORRECTLY:

- Is the probe jack securely inserted into the receptacle?
- Is the food you're attempting to heat already hotter than the temperature you're programming?
- Is the food completely defrosted?
- Has the probe been accidentally left in the oven when cooking by a method other than temperature cooking? The probe could be destroyed by leaving it in the oven when cooking by a method other than temperature cooking.

IF FOOD IS OVERCOOKED:

- Did you remember to program the correct Cooking Power Level? (Review instructions, page 15.)

IF FOOD IS UNDERCOOKED:

- Are there other energy-consuming appliances on the same circuit as the microwave oven? (Review installation instructions, pages 4 or 5, depending on your oven model.)
- Is the line voltage to your home low or lower than usual? (The power company in your area should be able to tell if there is low voltage to your home.)
- Did you remember to program the correct Cooking Power Level? (Review instructions, page 15.)

When Service is Required

Call nearest authorized service agency. (The dealer from whom you purchased your Radarange Oven can give you the name of your nearest authorized Service Center.) Help them give you prompt service by providing:

1. An accurate description of the trouble.
2. Complete model, serial and manufacturing numbers. (See page 1.)
3. Date of installation. (We also suggest you retain your sales receipt.)

Remember, repair by an unauthorized service person that results in subsequent failure will void the warranty promise.

Amana has a large network of Authorized Service Centers in the U.S. However, if you should have a service problem that is not resolved locally,

Write: Customer Relations Department
AMANA REFRIGERATION, INC.
Amana, Iowa 52204

Or Dial: (319) 622-5511 Monday through Friday (8 a.m.-5 p.m., Central Time Zone) and ask for Customer Relations.